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ABSTRACT

The Pupil Behavior Inventory was developed to infer learner self concept from teachers' ratings of eighteen items related to a pupil's overt classroom behavior. Split-halves reliability estimates for eleven teachers was 0.93 and reliability of the total score means of three raters for eleven students was 0.84. Four areas related to self concept as learner were identified from a factor analysis and were labelled: 1) Relating 2) Asserting 3) Investing 4) Accomplishing. Advantages of the instrument are: ease of scoring, non-reactivity with the pupil, measurement of self concept of early elementary pupils, as well as older pupils, and measurement of public behavior. Preliminary and revised versions of the instrument are included in the appendix. (Author/CK)

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THE DEVELOPMENT OF A "PUPIL BEHAVIOR INVENTORY" TO INFER LEARNER SELF CONCEPT*

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I. Introduction

For generations, wise teachers have sensed the significant relationship between a student's concept of himself and his performance in school. They believed that students who feel good about themselves and their abilities are those who are most likely to succeed. Conversely, it appeared that those who see themselves and their abilities in a negative fashion usually fail to achieve. In recent years a number of studies have supported this judgment that academic success or failure is deeply rooted in self-attitudes.

Brookover (1967) concluded from his extensive research on self image and achievement that the assumption of human ability as being the most important factor in achievement in school is questionable, and that student attitudes limit the level of achievement in school. Other studies by Fink (1962), Bledsoe (1967), Campbell (1967) and Irwin (1967) have emphasized the relationship between self-image and school success. Judging by the available evidence, there appears

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to be a persistent relationship between self-perceptions and academic achievement. In view of this relationship, there appears to be a clear need for the development of a naturalistic measure of self-concept. By naturalistic, we mean a measure which does not require the cooperation of the subject (as do self-report instruments), does not permit the subject's awareness that he is being measured, and does not change the phenomenon being measured.

The importance of a naturalistic measure is evidenced by the somewhat naive reliance of many investigators on self report. The difference, in Combs' words, is that the self concept is "what an individual <u>believes</u> he is. The self report on the other hand, is what the subject is ready, willing, able, or can be tricked to say he is. Clearly, these concepts are by no means the same" (Combs, 1962, p. 52).

II. Design and Methodology

<u>Purpose of the study</u>. The primary aim of this study was to devise and validate a simple inventory scale which classroom teachers could use to infer pupils' self concept as a learner without relying on pupils' self reports. This inventory, along with accompanying norms, would permit the classroom teacher to gain a more sensitive awareness of how each student feels about himself as a learner. This awareness has important implications for improving pupil performance in school (Purkey, 1970).

Ideally, of course, teachers could profit from training and supervised experience in measurement, clinical psychology, and personality theory to explore the self attitudes of pupils. This is not possible at present. Therefore, the Pupil Behavior Inventory: Preliminary Form (here after called PBI:PF) was developed with a recognition of the limitations of most teachers. The PBI:PF should be viewed as a preliminary and rather rough screening device which the authors hope will encourage teachers to become more aware of individual differences among children. At every step, teachers are encouraged to seek out counselors, school psychologists, and other qualified helpers to assist in interpretation of the PBI:PF.

A secondary purpose of the study relates to the fact that self report inventories have not proven satisfactory with early primary age children. The PBI:PF will allow teachers of primary children to gain a measure of learner self concept that has not been available previously.

Procedure. During the winter of 1969 and spring of 1970, the investigators reviewed available research data on self concept to identify the general classroom behaviors of pupils considered to possess positive and realistic self images. In-service elementary classroom teachers were asked to evaluate these classroom behaviors in terms

of their worth in inferring pupil self concept. From the review of research and from interviews with teachers, eighteen behavioral acts were isolated and described in written form. These written descriptions were juxtaposed with a rating scale to measure frequency of occurrence from 0 (never) to 5 (very often). This rating scale was named the "Pupil Behavior Inventory: Preliminary Form" (PBI:PF). Teachers were asked to rate each pupil on each of the eighteen behaviors. (Please see Appendix 1 for copy of PBI:PF.)

To determine a measure of concurrent validity of the eighteen descriptions on the PBI:PF, a comparison of each pupil's rating on each item of the PBI:PF with his self report as measured by each of the twenty-five items of the Coopersmith Self-Esteem Inventory (Coopersmith, 1967) was made. ~~(Please see Appendix 2 for copy of Coopersmith Self-Esteem Inventory.)~~ An index for reliability was ascertained by using the two-way analysis of variance procedure for estimating reliability (Kerlinger, 1965).

In May, 1970, all pupils in the 5th and 6th grades (N = 180) of an elementary school in North Central Florida, and all pupils in Quads 5 and 6 of an experimental elementary school in North East Florida (N = 155) were asked to rate themselves on the Coopersmith Self-Esteem Inventory. Teachers of these pupils were asked to complete the PBI:PF for each pupil.

The above procedure resulted in a total population of 335 pupils in two elementary schools. From each the investigators obtained (1) twenty-five professed self esteem statements as elicited by the Coopersmith Self-Esteem Inventory, and (2) 18 ratings (PBI:PF) on each pupil from at least one teacher (up to three per pupil on some) who taught the pupil during the school day.

Statistical Analysis. To determine the concurrent validity of the PBI:PF with the Self-Esteem Inventory (SEI), the PBI:PF and SEI scales were totaled. When more than one teacher had rated one child, a PBI:PF was randomly selected and correlated with his SEI. The coefficient of correlation was .14, indicating little concurrent validity of PBI:PF total scores with this self-report protocol. Using PBI:PF item scores in a multiple regression equation to predict SEI scores, a multiple R of 0.56 was obtained with 7 of the PBI:PF items.

Item normative scores by teacher were factor analyzed using a principal axes solution, followed by a Varimax rotation. Four factors were identified which account for 71 per cent of the total score variance and 92 per cent of the common variance (see Table 1). These four factors were labeled 1) Relating, 2) Asserting, 3) Investing, and 4) Accomplishing. The proportion of total score variability is construed to be a measure of construct validity. This is based on Kerlinger's

statement that "in fact, factor analysis may almost be called the most important of construct validity tools" (Kerlinger, 1965, p. 454).

Three teachers were found who had rated the same eleven students. From this, a measure of reliability of the means of three raters was found to be 0.84. Coefficients of reliability using the split-halves procedure were determined for all 12 teachers. These ranged from 0.62 to 0.96. A total split-halves reliability coefficient across all teachers was found to be 0.93.

Content validity was judged high by a panel of educators and psychologists.

Results. The results of the factor analysis indicate that there are four characteristics of children which teachers perceive within the 18 observable behaviors which comprise the PBI:PF. There is also evidence that some of these characteristics are interrelated statistically and logically. In summary, the result of this study was the development of the PBI:PF which has the following characteristics:

1. It can be quickly and accurately scored by a classroom teacher without training.
2. It has high inter-scorer reliability.
3. It measures public, rather than private behavior of the pupil.
4. It does not require the cooperation of the pupil.

5. It eliminates the disadvantages of self report.
6. It correlates in part with the pupil's professed self concept.
7. It can be used with early elementary and primary pupils.
8. It provides established norms for comparison purposes.

TABLE 1

Rotated Factor Loadings for PBI:PF
(Values below .400 omitted)

Item	Relating	Asserting	Investing	Accomplishing
4	.732			
5	.731			
11	.712			
2	.617	.538		
15	.616			
9		.800		
13		.772		
12		.766		
1	.400	.725		
10	.429	.604		
3	.500	.565		
8	.412	.553		
16	.410	.501	.524	
14		.562	.448	
6				.717
18	.481			.617
17	.464			.613
7		.481		.612

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PUPIL BEHAVIOR INVENTORY
PRELIMINARY FORM (PBI:PF)

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January 1971

TEACHER FORM

This scale is to assist you, the teacher, in evaluating how the student perceives his or her "learner" self. Please select one of the following answers and record the number in the blank space.

NEVER: 0	VERY SELDOM: 1	ONCE IN AWHILE: 2	OCCASIONALLY: 3	FAIRLY OFTEN: 4	VERY OFTEN: 5

_____
Name of student to be evaluated

Compared with other students his age, does this student:

1. ask meaningful questions in class? ____
2. say good things about his school? ____
3. talk to others about his school work? ____
4. get along with other students? ____
5. get along with the teacher? ____
6. finish his school work? ____
7. read in class? ____
8. join in school activities? ____
9. speak up for his own ideas? ____
10. look people in the eye? ____
11. keep calm when things go wrong? ____
12. offer to answer questions in class? ____
13. offer to speak in front of the class? ____
14. offer to do extra work in school? ____
15. tell the truth about his school work? ____
16. seek out new things to do in school on his own? ____
17. do his school work carefully? ____
18. pay attention to class activities? ____

TOTAL SCORE: ____

PUPIL BEHAVIOR INVENTORY
REVISED FORM

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University of Florida January 1971

TEACHER FORM

This scale is to assist you, the teacher, in evaluating how the student perceives his or her "learner" self. Please select one of the following answers and record the number in the blank space.

NEVER: 0	VERY SELDOM: 1	ONCE IN AWHILE: 2	OCCASIONALLY: 3	FAIRLY OFTEN: 4	VERY OFTEN: 5

_____
Name of Student to be Evaluated

Compared with other students his age, does this student:

1. get along with other students? ____
2. get along with the teacher? ____
3. keep calm when things go wrong? ____
4. say good things about his school? ____
5. tell the truth about his school work? ____

Relating ____

6. speak up for his own ideas? ____
7. offer to speak in front of the class? ____
8. offer to answer questions in class? ____
9. ask meaningful questions in class? ____
10. look people in the eye? ____
11. talk to others about his school work? ____
12. join in school activities? ____

Asserting ____

13. seek out new things to do in school on his own? ____
14. offer to do extra work in school? ____

Investing ____

15. finish his school work? ____
16. pay attention to class activities? ____
17. do his school work carefully? ____
18. read in class? ____

Accomplishing ____

TOTAL _____